

NASA TECH BRIEF



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A Polar Graphic Method for Determining the Attitude of Rocket Vehicles

A graphic method of determining rocket attitudes by plotting data obtained by fluxgate magnetometers and solar aspect sensors is enhanced by the use of polar coordinates. Polar graph paper is used to represent either the horizon system of altitude and azimuth or the celestial system of declination and right ascensions depending on the choice of solar, lunar, or magnetic field references. The polar translucent paper is superimposed on applicable transparencies which scale aspect angles and phase angles from given references. Rocket axis is thus fixed by the measurement of the aspect angles and the phase angle between them.

This innovation represents a simplified technique for navigational applications where accuracy to within 2° is tolerable.

Note:

The following documentation may be obtained from:

The Clearinghouse for Federal Scientific
and Technical Information
Springfield, Virginia 22151
Single document price \$3.00
(or microfiche \$0.65)

Reference: NASA TN-D-5172 (N69-23782), A Graphic Method for Determining the Absolute Attitude of Sounding Rocket Vehicles

Patent status:

No patent action is contemplated by NASA.

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Category 02